

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P629561

Luminaire Tested: GWS-SA1B-830-U-SL2-W-GRSBK

Issue Date: 1/10/2023

Test Information

Test Method: LM-79-2019
Report Number: P629561
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-28)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 1/10/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: McGRAW-EDISON
Catalog Number: GWS-SA1B-830-U-SL2-W-GRSBK
Description: GALLEON WALL SLIM LUMINAIRE. (1) LIGHTSQUARES WITH 16 LEDS EACH AND
TYPE II SPILL LIGHT ELIMINATOR OPTICS W/ FACTORY INSTALLED GLARE SHIELD,
BK
Light Source: (16) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1671.8 lumens
Efficiency: N/A
Efficacy: 66.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G0

Input Watts (W): 25
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 0
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



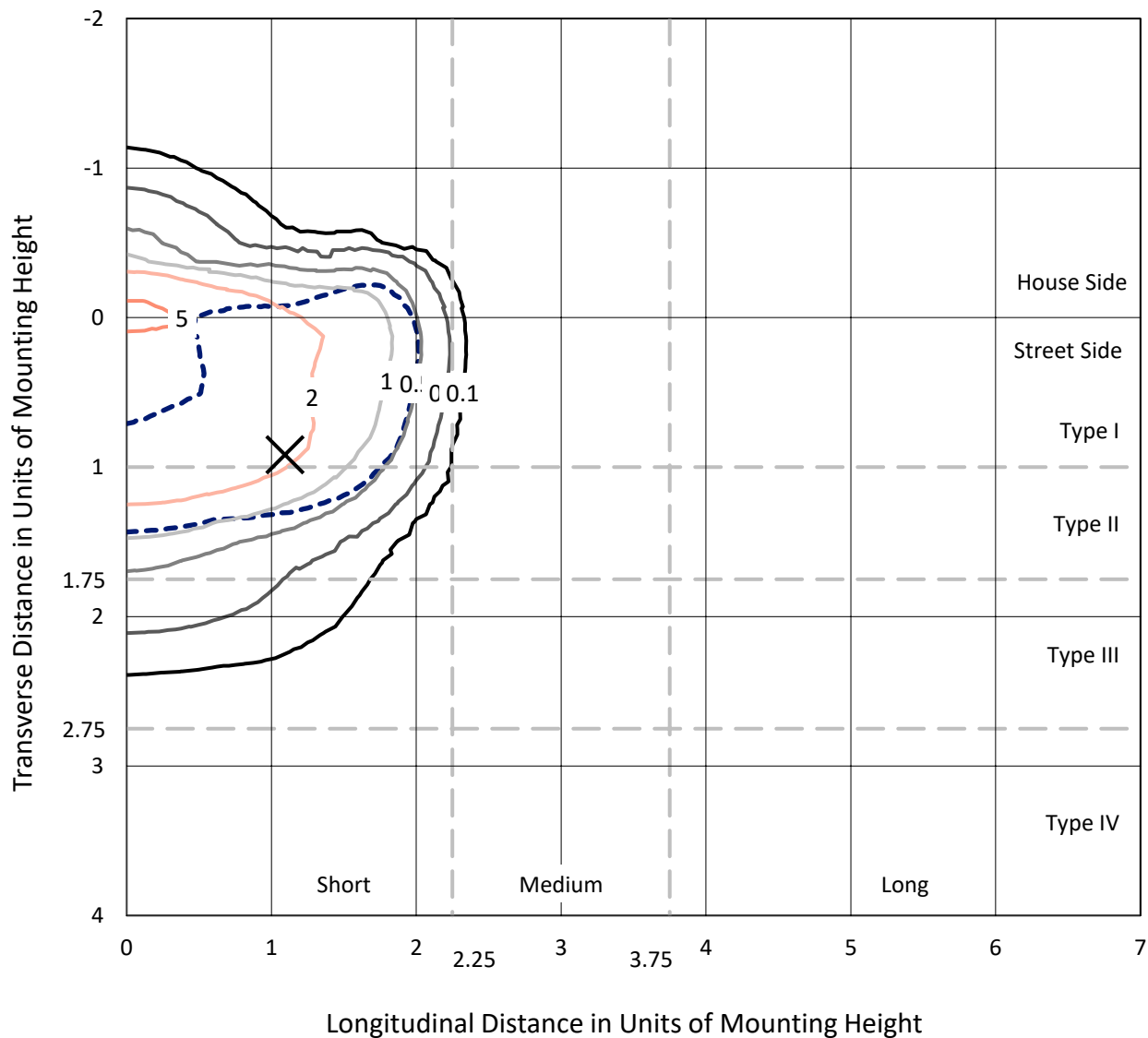
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CATALOG NUMBER: GWS-SA1B-830-U-SL2-W-GRSBK

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd

--- 1/2 Max cd

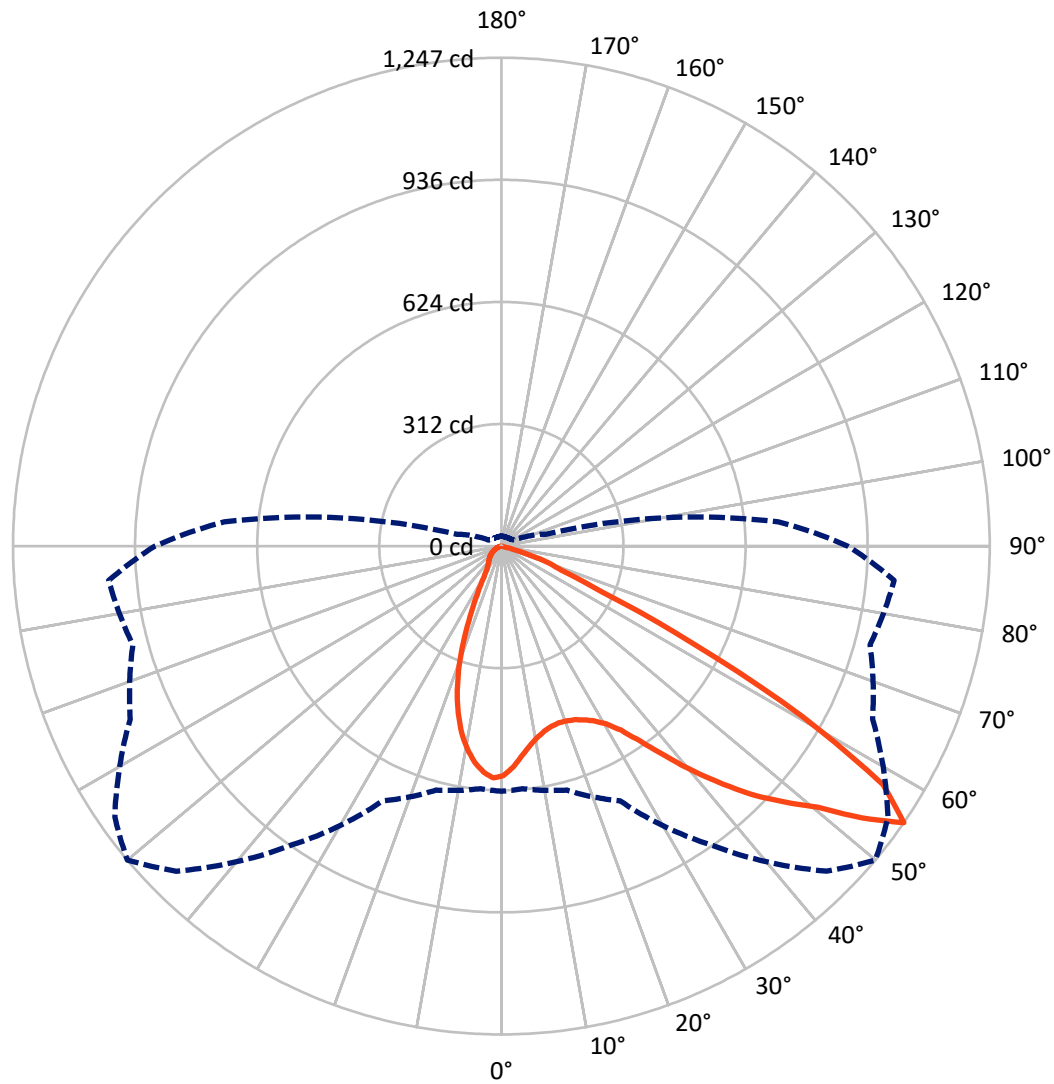


Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 50-Deg Lateral - - - Horizontal Cone Through 55-Deg Vertical

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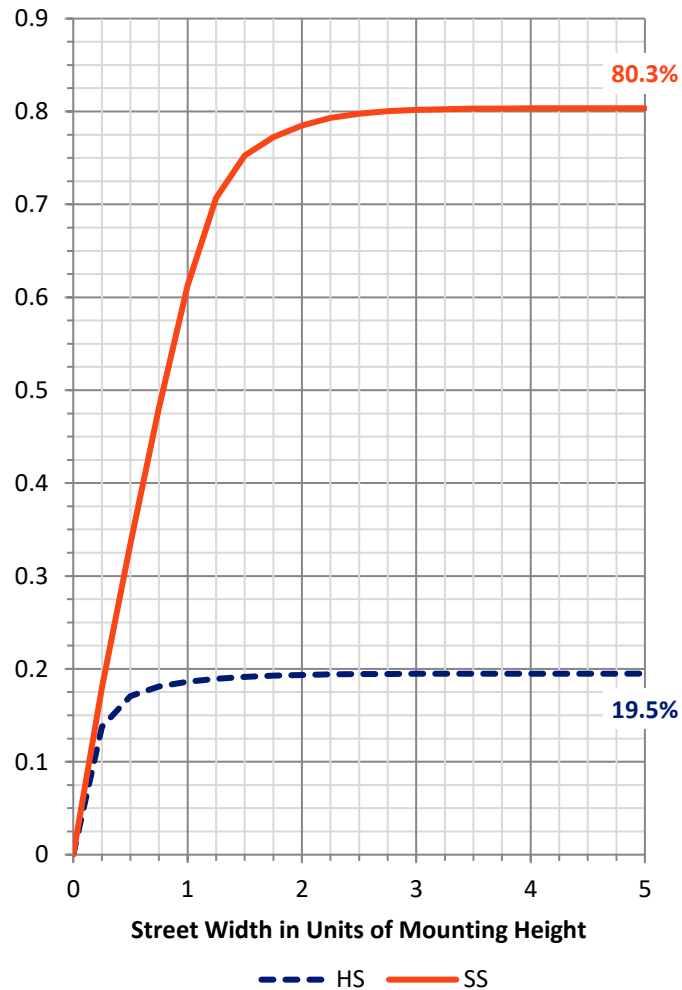
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	329.4	0.0	329.4
	% Fixture	19.7	0.0	19.7
Street Side	Lumens	1342.4	0.0	1342.4
	% Fixture	80.3	0.0	80.3
Total	Lumens	1671.8	0.0	1671.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.5	3.1
10°-20°	126.8	7.6
20°-30°	178.8	10.7
30°-40°	264.6	15.8
40°-50°	381.7	22.8
50°-60°	450.3	26.9
60°-70°	200.9	12.0
70°-80°	17.3	1.0
80°-90°	0.0	0.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	1671.8	100.0
0°-180°	1671.8	100.0

Coefficient of Utilization



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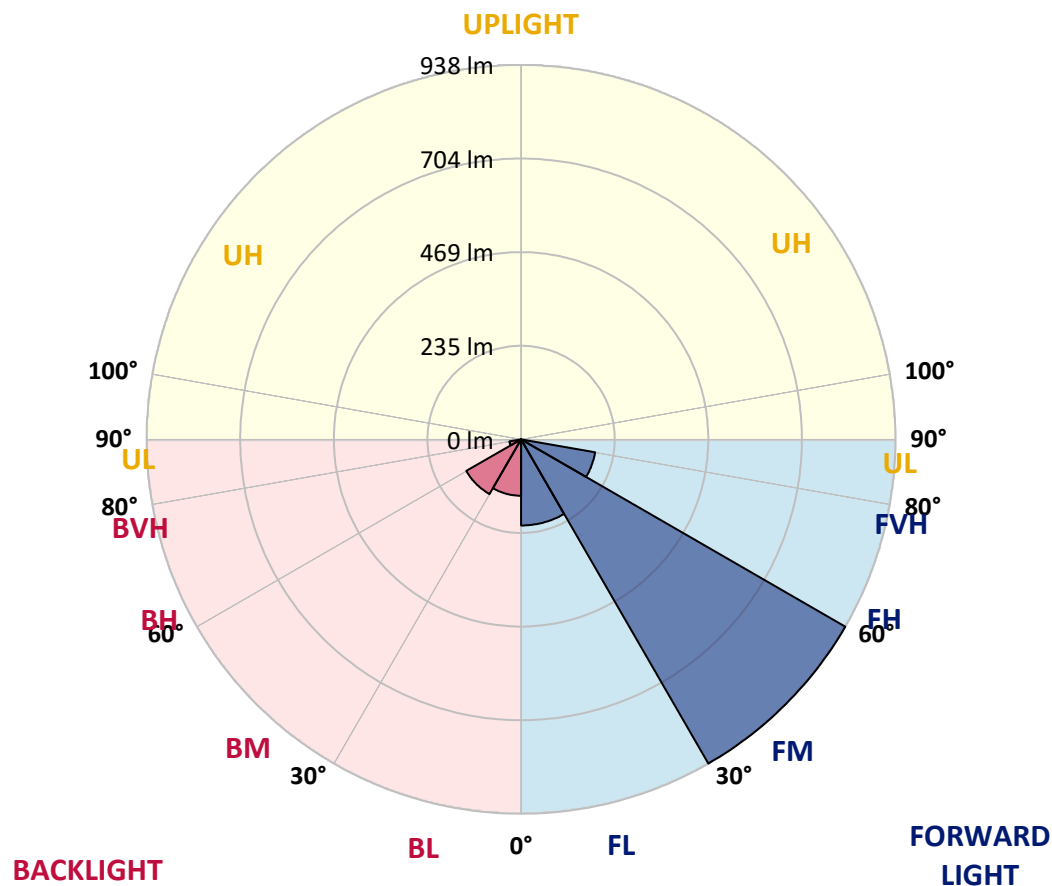
CATALOG NUMBER: GWS-SA1B-830-U-SL2-W-GRSBK

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	215.8	12.9			
FM	(30°-60°)	938.2	56.1			
FH	(60°-80°)	188.4	11.3			G0/660
FVH	(80°-90°)	0.0	0.0			G0/10
BL	(0°-30°)	141.2	8.4	B1/500		
BM	(30°-60°)	158.4	9.5	B0/220		
BH	(60°-80°)	29.7	1.8	B0/110		G0/110
BVH	(80°-90°)	0.0	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G0

Type II Short





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CATALOG NUMBER: GWS-SA1B-830-U-SL2-W-GRSBK

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	50°	55°	65°	75°	85°
0°	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6
2.5°	544.9	545.3	545.5	551.0	553.1	561.3	565.5	567.8	573.7	580.6	586.4
5°	508.4	507.8	508.8	515.7	520.2	532.3	538.8	543.3	556.4	572.7	586.4
7.5°	476.6	477.8	479.0	486.6	493.3	506.4	515.7	522.5	540.6	564.9	588.0
10°	454.1	454.1	455.9	464.5	472.5	488.6	498.0	506.6	528.2	558.0	589.8
12.5°	437.6	437.8	440.0	449.8	459.0	475.7	485.5	493.9	517.8	551.0	590.2
15°	429.8	429.2	431.0	441.5	451.7	467.4	477.6	485.7	510.4	547.2	592.3
17.5°	427.8	427.4	428.8	439.0	449.4	464.7	474.7	482.9	509.4	548.4	598.4
20°	433.7	432.9	432.3	441.0	450.8	465.9	476.4	485.5	514.3	555.1	607.8
22.5°	447.8	447.8	446.3	450.6	457.2	470.8	481.7	493.7	527.2	568.6	621.7
25°	473.7	471.7	469.0	470.8	470.0	478.6	491.5	508.2	551.5	590.8	638.6
27.5°	503.3	505.1	500.6	500.8	493.7	490.6	505.5	530.8	587.6	622.3	663.7
30°	543.5	542.1	542.3	541.7	525.1	510.6	526.8	560.4	633.1	670.2	696.4
32.5°	574.9	577.0	583.7	587.6	565.9	542.7	559.8	600.6	684.9	724.9	736.4
35°	608.2	611.9	625.5	638.2	620.0	593.3	611.7	653.9	733.7	779.0	782.3
37.5°	643.3	650.6	667.0	689.2	686.4	662.7	679.4	716.6	772.1	811.7	820.2
40°	683.5	690.6	717.4	749.4	756.2	750.9	756.4	778.0	797.4	813.1	836.6
42.5°	727.6	737.4	771.3	814.1	839.4	844.1	831.3	829.0	808.4	796.8	833.1
45°	779.6	791.1	829.4	884.9	925.1	931.5	909.2	880.5	815.3	784.7	822.7
47.5°	838.0	848.8	887.0	953.7	1013.5	1016.0	977.2	930.9	836.0	798.6	830.7
50°	857.6	864.3	897.4	975.8	1086.0	1104.7	1048.6	987.6	877.4	839.4	869.4
52.5°	790.2	792.9	821.7	900.9	1071.3	1191.9	1152.9	1072.3	951.1	901.7	929.2
55°	626.2	621.9	645.1	717.8	931.1	1174.1	1247.4	1205.4	1046.0	974.7	1007.0
57.5°	438.0	432.9	427.6	476.8	694.7	995.4	1149.4	1223.9	1136.4	1047.2	1090.9
60°	360.0	355.1	329.4	306.8	420.0	714.7	882.9	1023.1	1129.0	1043.5	1088.2
62.5°	311.0	308.2	297.8	267.0	247.2	408.0	552.9	687.2	866.4	819.4	821.9
65°	244.3	243.5	250.6	253.9	218.6	225.7	282.1	357.2	468.4	441.7	418.8
67.5°	166.9	165.1	178.6	219.6	210.2	178.2	165.1	166.5	202.7	123.9	98.4
70°	106.1	101.8	102.0	136.1	171.0	140.6	127.4	112.0	100.8	18.4	20.8
72.5°	68.0	65.3	56.1	61.4	79.2	68.6	69.2	59.6	39.8	9.8	11.4
75°	28.6	26.3	20.2	16.1	15.9	10.0	8.8	8.2	5.5	5.5	5.9
77.5°	0.2	0.0	0.0	0.2	0.4	0.2	0.2	0.4	0.8	1.2	1.4
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6	586.6
2.5°	589.8	584.9	590.4	592.5	592.3	592.5	586.6	582.5	582.3	577.2	574.7
5°	592.1	588.2	592.3	589.6	583.3	575.3	564.7	555.5	551.5	545.5	542.7
7.5°	596.4	592.3	591.7	581.0	565.3	548.6	529.8	513.1	504.1	493.3	493.9
10°	599.4	594.7	586.8	565.1	539.0	512.3	484.3	459.4	443.7	429.2	426.8
12.5°	600.6	593.7	575.1	542.5	505.7	470.8	429.8	394.3	369.8	350.8	348.2
15°	602.9	591.7	560.2	515.1	464.7	415.3	363.1	314.5	282.1	260.2	262.1
17.5°	606.4	589.4	543.5	484.5	420.6	350.8	280.2	224.5	194.7	182.1	182.3
20°	611.3	586.8	525.1	450.8	367.8	278.0	195.9	153.9	145.5	145.1	144.5
22.5°	617.8	584.1	505.5	413.9	305.1	194.7	130.4	117.4	120.8	127.6	128.8
25°	625.5	580.8	483.7	372.3	236.7	127.8	97.8	95.7	104.1	113.1	115.1
27.5°	637.6	579.2	458.8	324.9	166.1	91.6	80.0	81.2	88.8	96.3	98.2
30°	658.0	582.3	431.7	271.9	106.7	73.1	69.4	71.2	75.3	79.2	80.8
32.5°	685.7	591.3	405.3	213.9	76.1	63.5	62.7	63.7	65.3	67.6	68.2
35°	718.2	606.8	378.2	153.1	62.9	58.0	57.1	57.1	58.0	58.4	58.6
37.5°	744.9	623.1	352.7	101.8	56.3	53.7	52.5	51.8	51.6	52.0	52.2
40°	756.6	629.8	324.9	74.1	51.6	49.8	48.0	46.1	46.1	47.6	47.8
42.5°	748.4	622.3	292.9	61.2	48.4	45.7	42.9	41.2	42.0	43.5	43.9
45°	731.1	603.7	257.6	54.1	45.1	41.6	38.4	37.3	38.2	40.0	40.4
47.5°	728.2	591.5	215.3	49.4	41.6	38.2	34.7	33.7	34.7	36.1	36.5
50°	756.6	602.1	168.4	45.3	38.4	34.5	31.6	30.6	31.2	32.0	32.5
52.5°	808.4	641.5	135.9	41.4	34.5	30.8	29.0	27.8	27.8	28.6	28.8
55°	884.9	710.2	117.4	36.9	30.0	28.0	26.3	25.1	25.1	25.5	25.7
57.5°	973.1	793.5	121.6	31.0	26.3	25.3	23.9	22.9	23.3	23.3	23.3
60°	960.9	787.4	130.2	26.1	23.3	22.9	21.6	21.2	22.2	21.4	21.0
62.5°	707.8	543.9	68.2	21.4	20.0	19.6	18.8	19.6	21.0	18.8	18.0
65°	343.7	263.3	27.3	17.6	16.9	16.5	16.1	17.3	18.2	14.7	13.9
67.5°	80.8	65.7	17.8	14.9	14.1	13.3	13.7	13.9	13.3	10.0	9.6
70°	21.0	20.6	13.9	12.4	11.2	10.4	10.4	10.2	8.8	6.3	5.9
72.5°	11.4	11.2	10.0	9.4	7.8	6.9	7.1	6.3	4.9	3.7	3.5
75°	5.7	6.1	5.7	5.3	4.3	3.9	3.9	3.5	2.4	1.4	1.4
77.5°	1.2	1.4	1.4	1.2	1.0	0.8	0.8	1.0	0.4	0.0	0.0
80°	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

LM-79-2019: Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products

Report Prepared for

Cooper Lighting Solutions

MCGRAW EDISON

Report Number: SP1-2408-195-9

Test Date: 08/07/2024

Luminaire Tested: GALN-SB1A-830-U-5WQ

Data in this report applies to families of products including GALN-SB1A-830-U-5WQ.

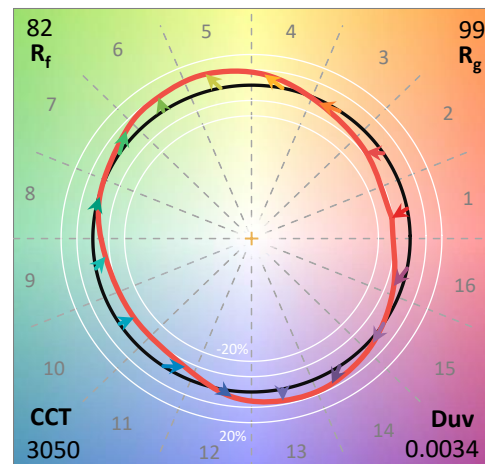
Test Information

Test Method: LM-79-2019
 Report Number: SP1-2408-195-9
 Test Lab: COOPER LIGHTING SOLUTIONS
 Photometer: SP1 - 76IN SPHERE
 Measurement Geometry: 4π
 Issue Date: 08/07/2024
 Manufacturer: COOPER LIGHTING SOLUTIONS
 Product Line: MCGRAW EDISON
 Catalog Number: **GALN-SB1A-830-U-5WQ**
 Description: GALLEON AREA AND ROADWAY LUMINAIRE. (1) 80 CRI, 3000K, 350MA HIGH DENSITY LIGHTSQUARE WITH 26 LEDS AND TYPE V WIDE OPTICS

Spectral Parameters

CCT (K): 3050
 CIE u' : 0.2476
 CIE v' : 0.5251
 Duv: 0.0034
 CIE x: 0.4383
 CIE y: 0.4131
 CIE z: 0.1487
 Peak Wavelength (nm): 603
 Dominant Wavelength (nm): 581
 Purity: 55.55201
 R_f: 81.5
 R_g: 99.2

CRI (Ra): 81.0
 R1: 79.6
 R2: 85.6
 R3: 92.0
 R4: 82.6
 R5: 78.9
 R6: 81.7
 R7: 85.2
 R8: 62.0
 R9: 7.1
 R10: 67.0
 R11: 82.7
 R12: 63.2
 R13: 80.3
 R14: 95.0
 R15: 71.7



Test Conditions

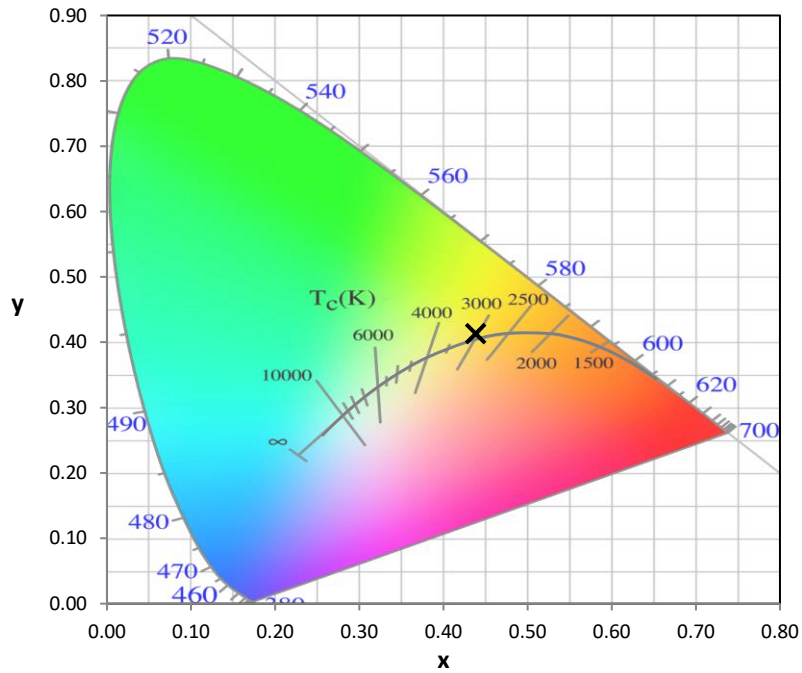
Stabilization Time: 20M
 Operation Time: 1H 20M
 Sphere Temperature (°C): 24.2

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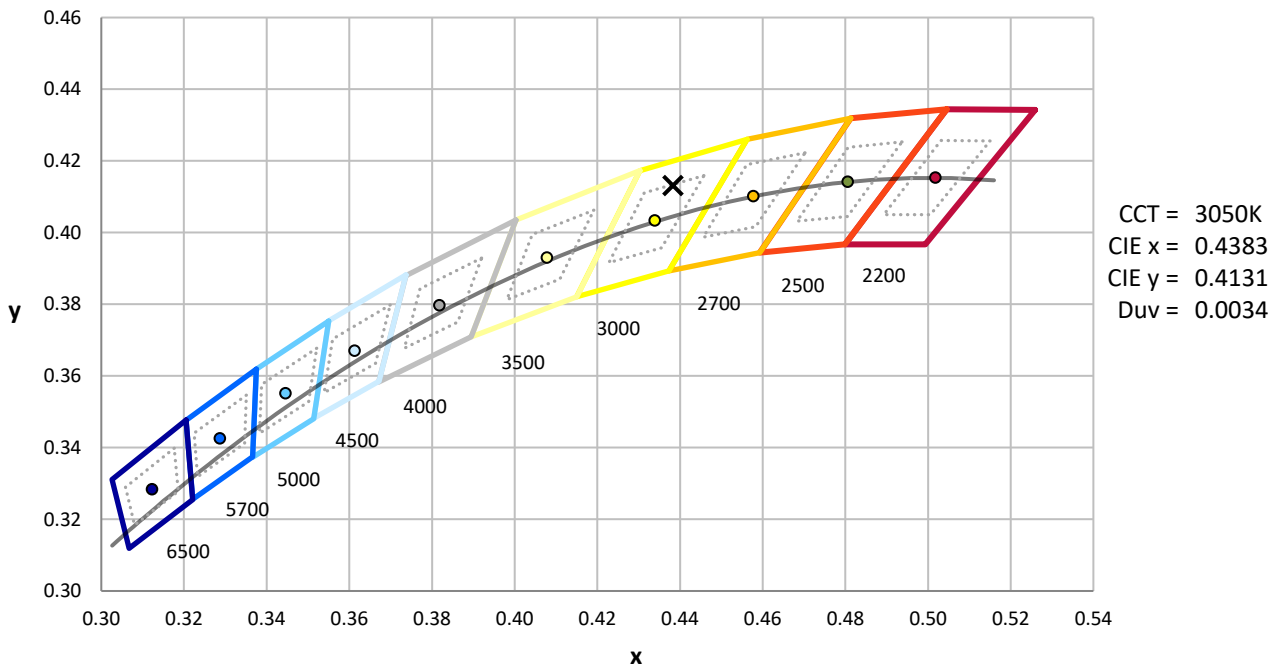
Measurement and Test Equipment			
Instrument	Identification Number	Calibration Date	Calibration Due Date
Photometer	IN0058	6/18/2024	12/18/2024
Power Meter	INXT2011004	2/8/2024	2/8/2025
AC Power Source	IN0063	10/24/2023	10/24/2024
DC Power Source	IN0208	10/24/2023	10/24/2024
Sphere Thermometer	IN0085	10/24/2023	10/24/2024
Room Thermometer	IN0046	10/24/2023	10/24/2024

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CIE 1931 Chromaticity Diagram



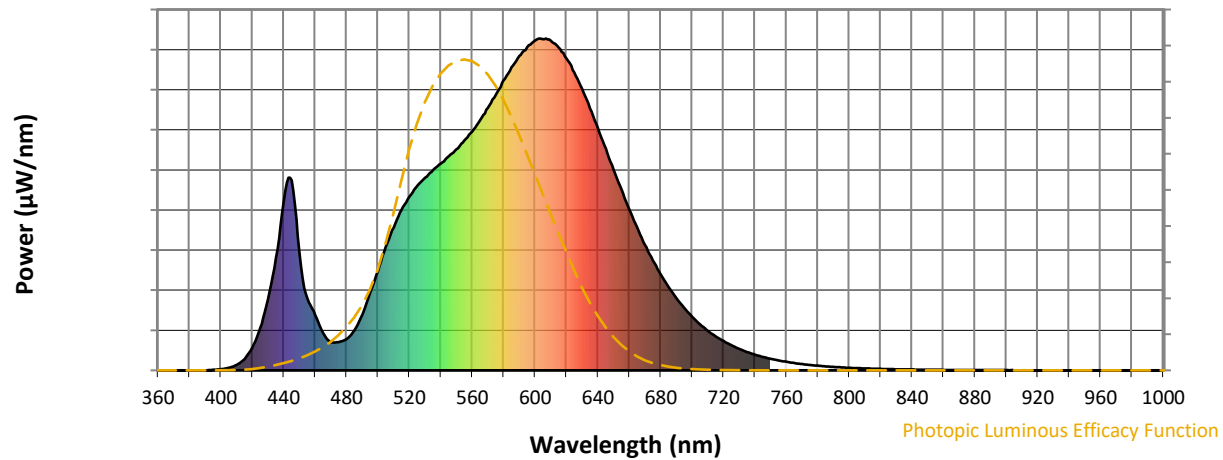
CIE 1931 Chromaticity Diagram with 2017 ANSI 7-Step and 4-Step Quadrangles



Point lies inside the ANSI 3000K 4-step quadrangle

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Photopic Flux vs. Wavelength

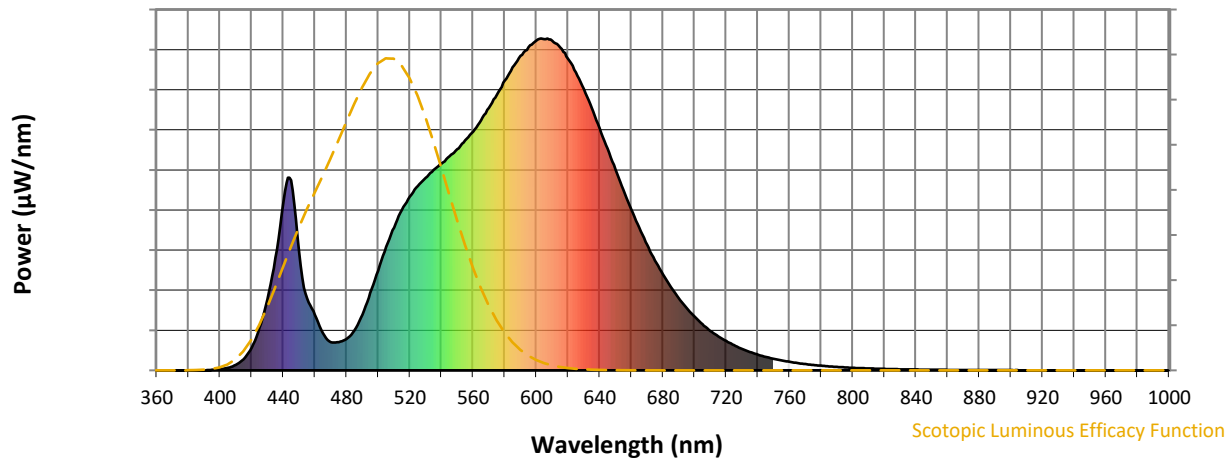


Photopic Lumens: NR

λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^{\wedge}/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Scotopic Flux vs. Wavelength



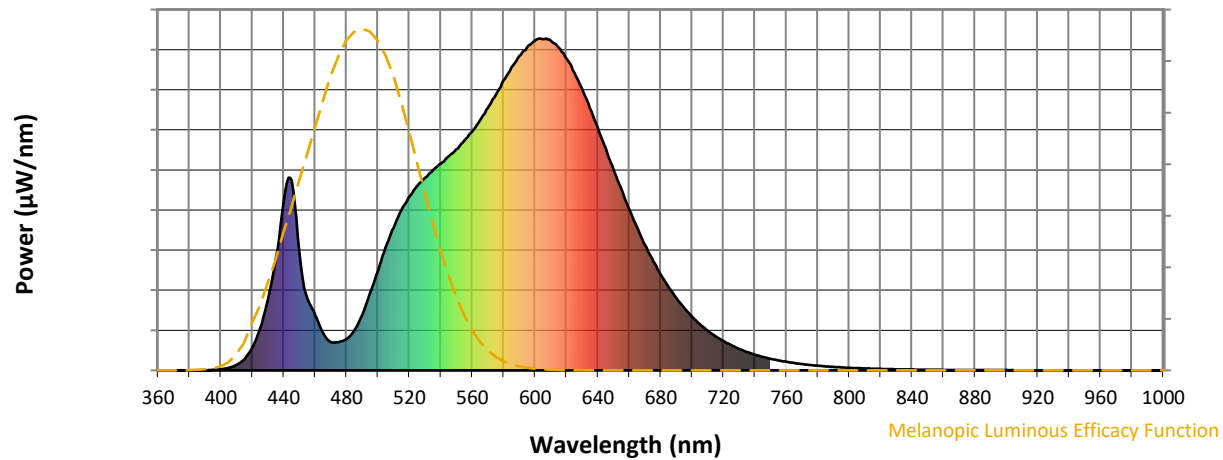
Scotopic Lumens: NR

S/P: 1.27

λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)	λ (nm)	Power W [^] /nm	Lumens (Φ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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Melanopic Flux vs. Wavelength


Melanopic Lumens: NR
M/P: 2.32

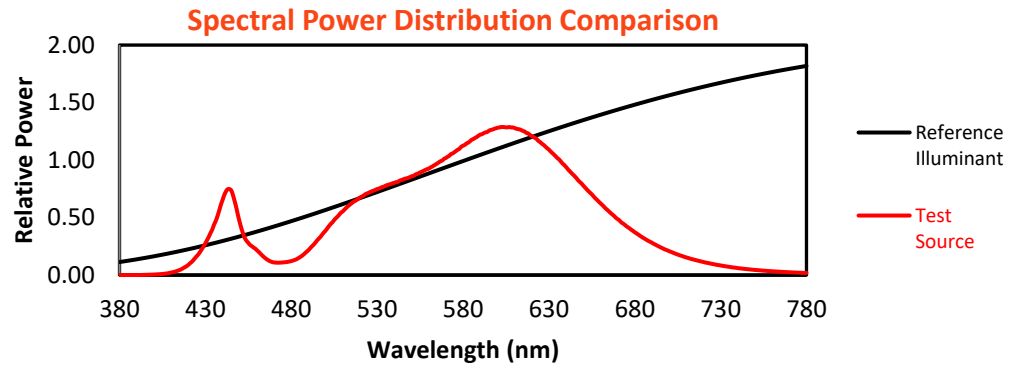
λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)	λ (nm)	Power $\text{W}^\wedge/\text{nm}$	Lumens (ϕ/nm)
360	0	NR	490	168	NR	620	940	NR	750	35	NR	880	1	NR
365	0	NR	495	233	NR	625	897	NR	755	30	NR	885	1	NR
370	0	NR	500	300	NR	630	847	NR	760	26	NR	890	1	NR
375	0	NR	505	372	NR	635	790	NR	765	22	NR	895	1	NR
380	0	NR	510	430	NR	640	730	NR	770	19	NR	900	1	NR
385	0	NR	515	483	NR	645	668	NR	775	16	NR	905	1	NR
390	0	NR	520	524	NR	650	605	NR	780	14	NR	910	0	NR
395	2	NR	525	555	NR	655	545	NR	785	12	NR	915	0	NR
400	4	NR	530	581	NR	660	485	NR	790	10	NR	920	0	NR
405	7	NR	535	604	NR	665	430	NR	795	9	NR	925	0	NR
410	17	NR	540	623	NR	670	378	NR	800	8	NR	930	0	NR
415	34	NR	545	645	NR	675	331	NR	805	7	NR	935	0	NR
420	68	NR	550	667	NR	680	290	NR	810	6	NR	940	0	NR
425	128	NR	555	693	NR	685	251	NR	815	5	NR	945	0	NR
430	214	NR	560	719	NR	690	218	NR	820	4	NR	950	0	NR
435	339	NR	565	754	NR	695	188	NR	825	4	NR	955	0	NR
440	507	NR	570	791	NR	700	162	NR	830	3	NR	960	0	NR
445	573	NR	575	830	NR	705	139	NR	835	3	NR	965	0	NR
450	356	NR	580	873	NR	710	119	NR	840	3	NR	970	0	NR
455	217	NR	585	913	NR	715	102	NR	845	2	NR	975	0	NR
460	168	NR	590	948	NR	720	88	NR	850	2	NR	980	0	NR
465	113	NR	595	974	NR	725	76	NR	855	2	NR	985	0	NR
470	85	NR	600	994	NR	730	65	NR	860	1	NR	990	0	NR
475	85	NR	605	998	NR	735	55	NR	865	1	NR	995	0	NR
480	94	NR	610	994	NR	740	47	NR	870	1	NR	1000	0	NR
485	120	NR	615	973	NR	745	41	NR	875	1	NR			

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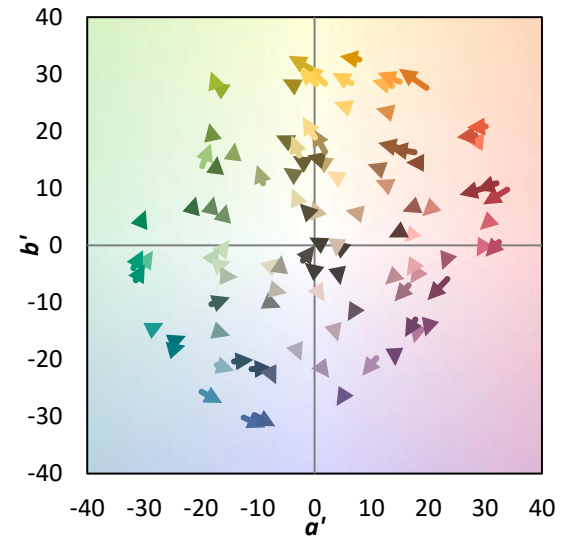
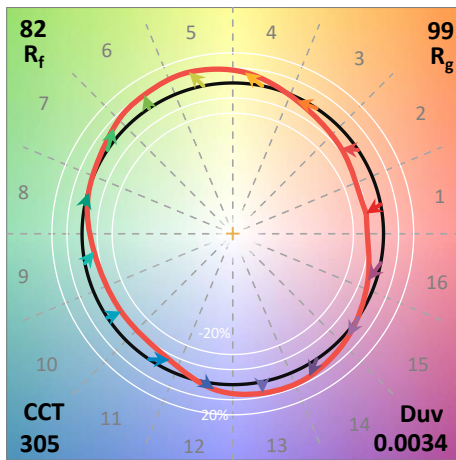
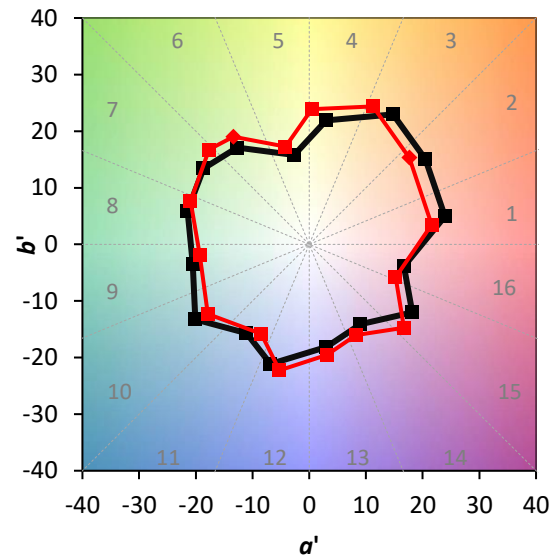
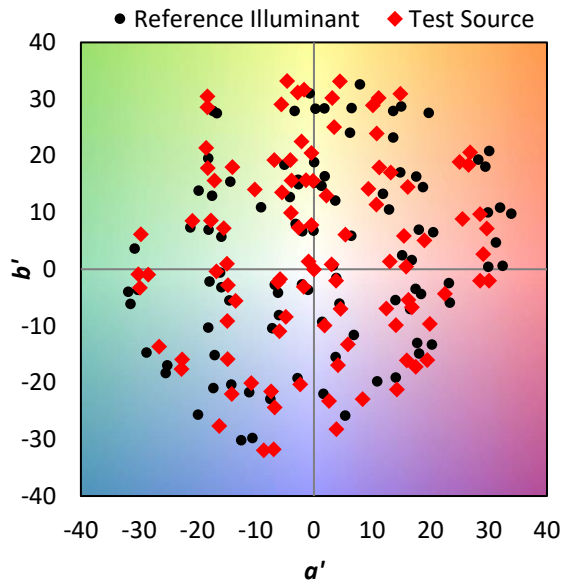
TM-30-18

Summary

$R_f = 81.5$
 $R_g = 99.2$
 $CIE R_a = 81.0$
 $R_9 = 7.1$

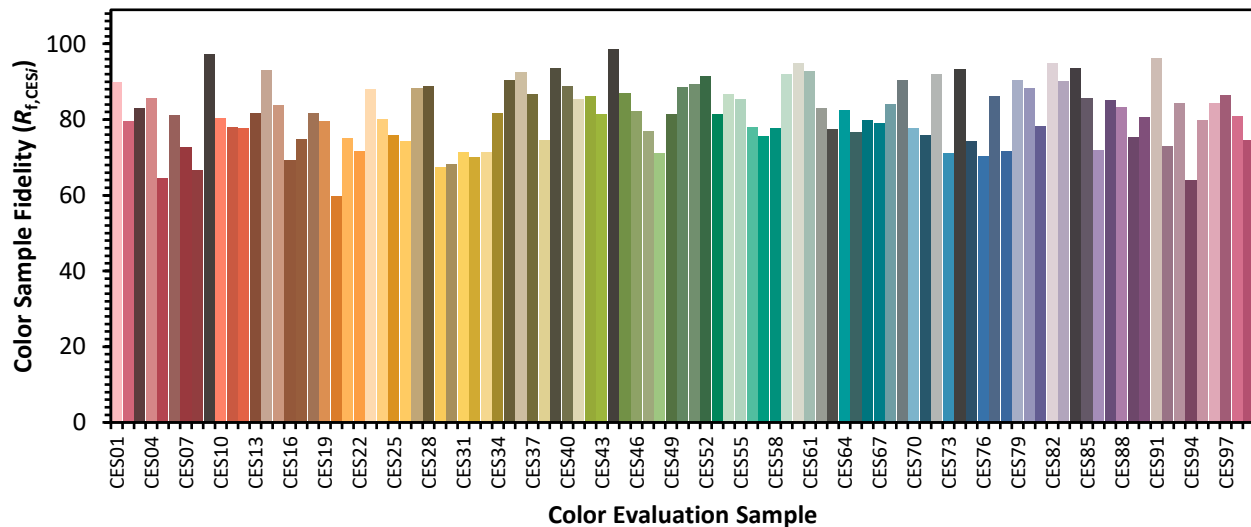


Color Vector Graphics

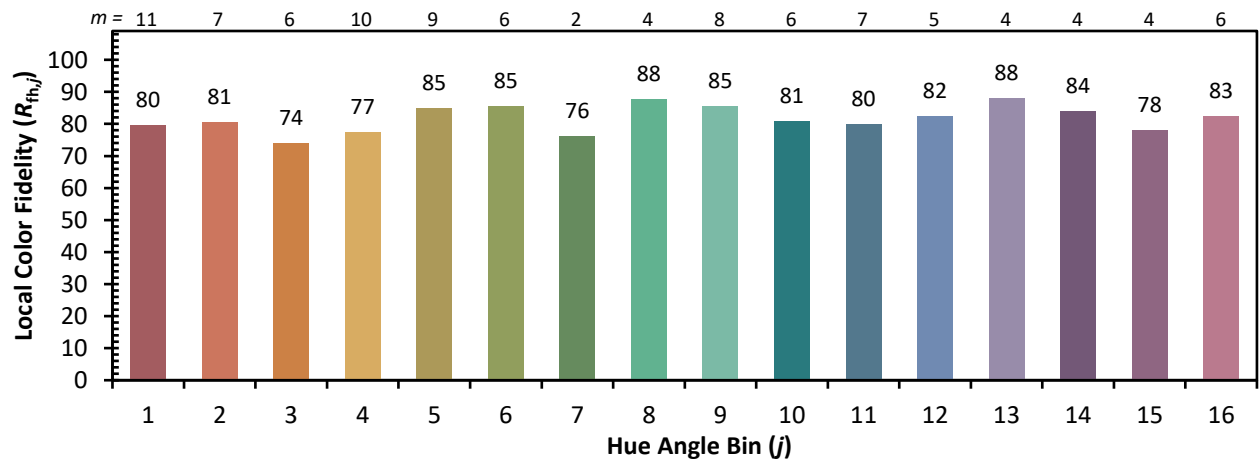
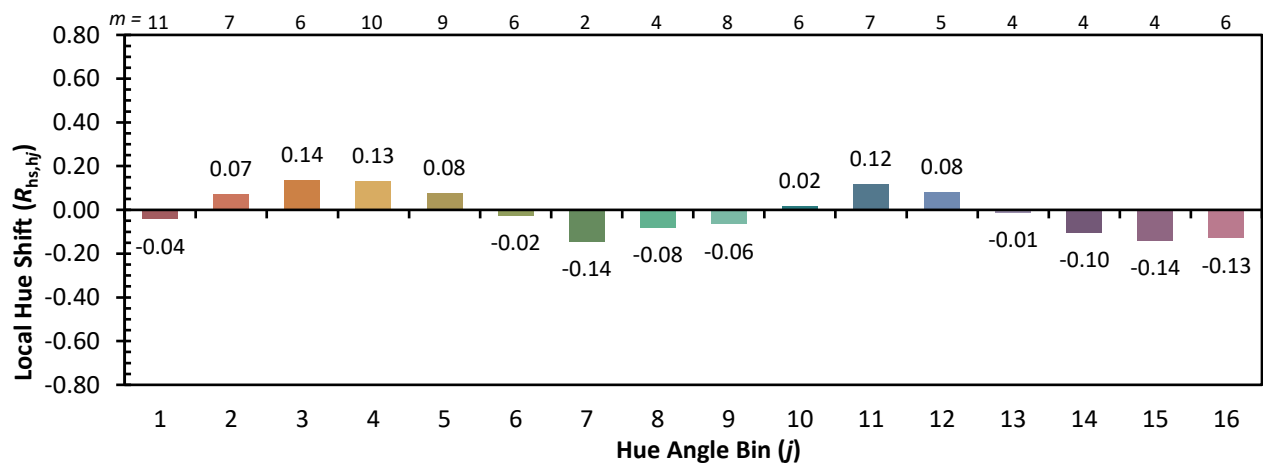
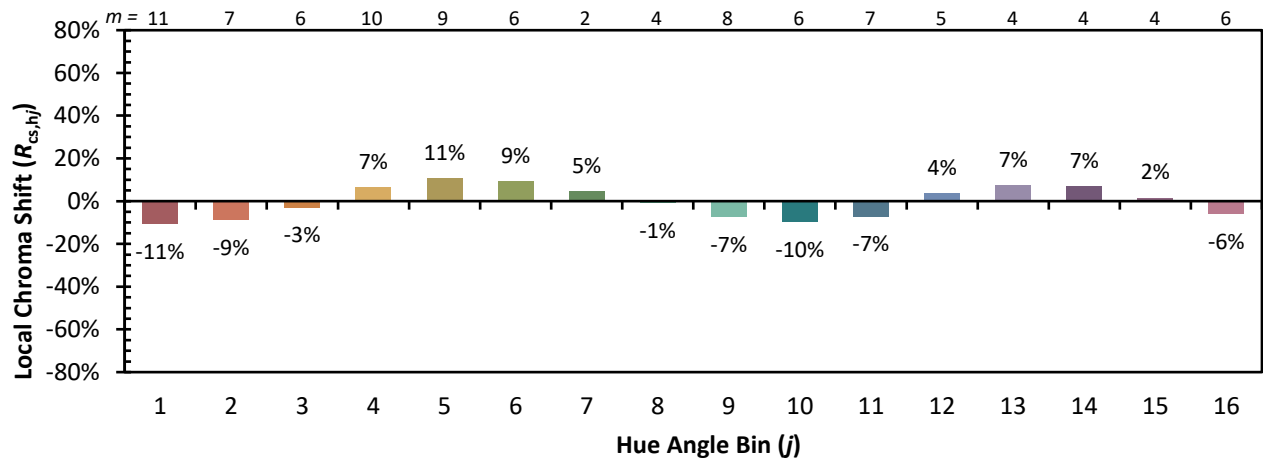


Individual Sample Fidelity Index ($R_{f,i}$)

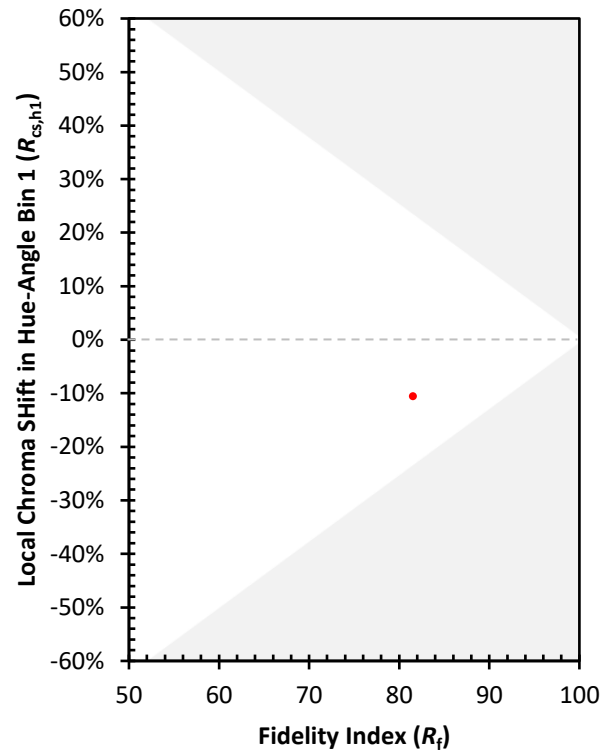
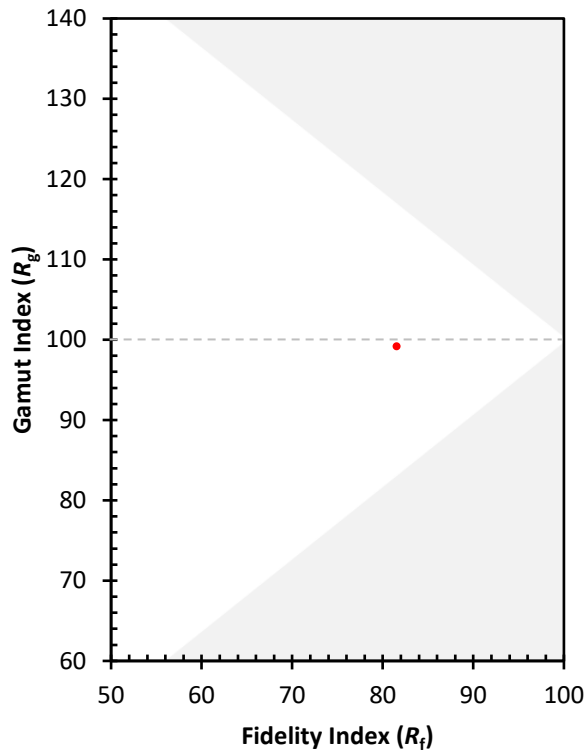
CES01 = 86	CES26 = 74	CES51 = 89	CES76 = 70
CES02 = 63	CES27 = 88	CES52 = 92	CES77 = 86
CES03 = 31	CES28 = 89	CES53 = 81	CES78 = 72
CES04 = 70	CES29 = 67	CES54 = 87	CES79 = 90
CES05 = 50	CES30 = 68	CES55 = 85	CES80 = 88
CES06 = 51	CES31 = 71	CES56 = 78	CES81 = 78
CES07 = 42	CES32 = 70	CES57 = 76	CES82 = 95
CES08 = 41	CES33 = 71	CES58 = 78	CES83 = 90
CES09 = 29	CES34 = 82	CES59 = 92	CES84 = 94
CES10 = 76	CES35 = 90	CES60 = 95	CES85 = 86
CES11 = 59	CES36 = 93	CES61 = 93	CES86 = 72
CES12 = 65	CES37 = 87	CES62 = 83	CES87 = 85
CES13 = 43	CES38 = 75	CES63 = 77	CES88 = 83
CES14 = 74	CES39 = 94	CES64 = 83	CES89 = 75
CES15 = 71	CES40 = 89	CES65 = 77	CES90 = 81
CES16 = 47	CES41 = 85	CES66 = 80	CES91 = 96
CES17 = 50	CES42 = 86	CES67 = 79	CES92 = 73
CES18 = 56	CES43 = 81	CES68 = 84	CES93 = 84
CES19 = 72	CES44 = 99	CES69 = 91	CES94 = 64
CES20 = 66	CES45 = 87	CES70 = 78	CES95 = 80
CES21 = 87	CES46 = 82	CES71 = 76	CES96 = 84
CES22 = 79	CES47 = 77	CES72 = 92	CES97 = 87
CES23 = 92	CES48 = 71	CES73 = 71	CES98 = 81
CES24 = 91	CES49 = 81	CES74 = 93	CES99 = 74
CES25 = 72	CES50 = 89	CES75 = 74	



Color Rendition by Hue-Angle Bin



Measure Comparisons



(END OF REPORT)